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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/640,674	08/18/2000	Frank Hundscheidt	012050-066	6777
27045	7590	03/09/2005	EXAMINER	
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR C11 PLANO, TX 75024			FERRIS, DERRICK W	
			ART UNIT	PAPER NUMBER
			2663	

DATE MAILED: 03/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/640,674

Applicant(s)

HUNDSCHIEDT ET AL.

Examiner

Derrick W. Ferris

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-20 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 18 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. This Office action is in response to applicant's paper filed 06/18/2004. **Claims** 1-20 as amended are still in consideration for this application. Applicant has amended claims 1, 4-8, 10-12, and 13-20. Applicant has canceled claims 21-28.
2. Examiner **withdraws** the claim objection(s). Examiner thanks applicant for making the necessary corrections.
3. Examiner **withdraws** the 112-second paragraph rejection(s). Examiner thanks applicant for making the necessary corrections to clarify the recited claimed subject matter and thus withdraws the rejection.
4. Examiner does **not withdraw** the anticipated rejection to *Ericsson*. The following comments fully address applicant's arguments with respect to the rejection. In particular, examiner notes applicant's newly added limitation is taught by the reference in figure 8. Specifically, see the rejection below with respect to the limitation.
5. Examiner does **not withdraw** the obviousness rejection to *Ericsson* in view of *Blake* and *Ericsson* in view of *Mikkonen*. The following comments fully address applicant's arguments with respect to *Ericsson* in view of *Blake*. The examiner has clarified the rejection per applicant's request. The obviousness rejection below clarifies the limitation(s) at issue. In summary, the previous rejection addressed the further clarification of a "service differentiation field" as ToS bits as further recited e.g., in dependent claim 9 (i.e., see claim 9 in view of claim 8). Thus the rejection for claim 8 in the previous Office action addressed both claim 8 and claim 9 which should have been clear. AS for applicant's arguments, *Ericsson* supports both Diffserv

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and Intserv (in the form of RSVP), see e.g., bottom of page 21. Thus as long as either Diffserv or Intserv is taught, the other is also taught. Stated another way, applicant implicitly admits both are interchangeable by claiming Diffserv e.g., in claim 8 but also claiming Intserv e.g., in claim 13 (i.e., applicant is only entitled to one invention such that if there were a distinction then applicant should have filed two separate applications). *Blake* further explains Diffserv and using the ToS bits (i.e., the traffic class octet as recited e.g., in claim 9). Hence a circuit-switched signaling is taught by *Ericsson* for both Intserv and Diffserv, see e.g., page 24 with respect to mapping where the parameters define both transmission of data and signalling. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). As such, *Ericsson* teaches two way communication for both Intserv and Diffserv.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7. **Claims 1-7, 13, 14, and 17-20** are rejected under 35 U.S.C. 102(a) as being anticipated by WO 99/16266 to *Ericsson*.

As to **claim 1**, *Ericsson* discloses an internetworking method/apparatus shown e.g., in figure 9 where the GGSN 116 contains a Mapper 128 (emphasis claim 40 of

*Ericsson* in reference to a gateway node and mapping function). Figure 9 also shows the GSN network (i.e., circuit-switched or packet-switched bearer channels) between a mobile station 102 and the GGSN 116 (i.e., a circuit switched network) as well as an Internet connection between the GGSN 116 and the ISP 130 (i.e., a packet switched network). With respect to receiving circuit-switched service parameters and packet-switched parameters as well as mapping these parameters see e.g., page 24 and page 27, lines 4-14. With respect to forwarding see e.g., page 5, lines 14-25 where the GGSN maintains routing information. With respect to checking the allowability of the service parameters and if the service parameters are not allowable, negotiating allowable service parameters see e.g., figure 8. In particular, if a service parameter is not allowable (i.e., above, below, within T, or not present) then either a new bear is created or the existing parameter is modified (see e.g., blocks 84 and 85) where the QoS parameters are then further mapped thus teaching negotiation.

As to **claim 2**, see e.g., page 24.

As to **claim 3**, see e.g., page 24.

As to **claim 4**, see e.g., page 24 where the bearer service type is included (i.e., bearer capability information).

As to **claim 5**, see e.g., page 24 where the bearer service type is included (i.e., bearer capability information).

As to **claim 6**, see e.g., page 19, lines 10-21; page 21, lines 19-27; and page 24.

As to **claim 7**, see e.g., page 19, lines 10-21; page 21, lines 19-27; and page 24.

As to **claim 13**, see similar rejection for claim 1. In addition, with respect to RSVP see e.g., page 18, last paragraph.

As to **claim 14**, see similar rejection for claim 13.

As to **claim 17**, see similar rejection for claim 1 where the mapping table is shown e.g., on page 24.

As to **claim 18**, see similar rejection for claim 1.

As to **claim 19**, see similar rejection for claim 17.

As to **claim 20**, see similar rejection for claim 1. With respect to negotiating of parameters, see e.g., page 6, lines 7-13.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 8-12, 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/16266 to *Ericsson* in view of “An Architecture for Differentiated Services” to *Blake et al.* (“*Blake*”).

In making a proper obviousness rejection under MPEP 706.02(j), the examiner will address the following four steps:

- a) *the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line numbers where appropriate;*
- b) *the difference of differences in the claim(s) over the applied cited references;*

- c) the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter; and*
- d) an explanation why one skilled in the art at the time of the invention was made would have been motivated to make the proposed modification.*

As such to **claim 8**, for step (a) *Ericsson* discloses using DiffServ, see e.g., page 21, line 19 – page 22, line 6 and page 32, first paragraph.

For step (b) *Ericsson* is silent or deficient to the further limitation using the packet-oriented protocol bit settings in a service differentiated field (DS) of the packet.

*Blake* teaches the further recited limitation above at e.g., page 3 first full paragraph in view of page 5 in reference to a “DS field”.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Ericsson* by clarifying that DiffServ uses the DS field as is well known in the art such that the bit settings in the service differentiated field are used.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

*First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.*

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant’s invention to include the further limitation said differentiation field (DS) is a Traffic Class Octet according to IPv6 or a Type of service field according to IPv4. In particular, the motivation for modifying the reference or to combine the reference teachings would be to clarify how DiffServ works as is well

known in the art. In particular, *Blake* cures the above-cited deficiency by providing a motivation found at e.g., page 1 since *Blake* discloses the architecture for DiffServ. Second, there would be a reasonable expectation of success since *Blake* discloses the architecture for DiffServ. Thus the references either in singular or in combination teach the above claim limitation(s).

As to **claim 9**, see similar rejection for claim 8.

As to **claim 10**, see similar rejection for claim 8.

As to **claim 11**, see similar rejection for claim 9.

As to **claim 12**, see similar rejection for claim 4.

As to **claims 15-16**, for step (a) *Ericsson* discloses ATM and Frame Relay.

For step (b) *Ericsson* is silent or deficient to the further limitation that ATM and Frame Relay are label-switching. In particular, *Ericsson* discloses layer 2 tunneling to the ISP and also teaches that the IP tunnel could be ATM or FR, see e.g., page 28, lines 9-15.

*Blake* teaches the further recited limitation above at e.g., page 10 last paragraph.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Ericsson* by clarifying that ATM and Frame Relay are label switching protocols.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

*First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a*



*reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.*

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include ATM or Frame Relay where ATM and FR are label-switching protocols. In particular, the motivation for modifying the reference or to combine the reference would be to use ATM or FR since both of these protocols offer better built-in security. In particular, *Blake* cures the above-cited deficiency at page 28, first full paragraph. Second, there would be a reasonable expectation of success since *Blake* discloses that ATM or FR is possible. Thus the references either in singular or in combination teach the above claim limitation(s).

10. **Claims 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/16266 to *Ericsson* in view of U.S. Patent No. 6,587,457 B1 to *Mikkonen*.

In making a proper obviousness rejection under MPEP 706.02(j), the examiner will address the following four steps:

- a) *the relevant teachings of the prior art relied upon, preferably with reference to the relevant column or page number(s) and line numbers where appropriate;*
- b) *the difference of differences in the claim(s) over the applied cited references;*
- c) *the proposed modification of the applied reference(s) necessary to arrive at the claimed subject matter; and*
- d) *an explanation why one skilled in the art at the time of the invention was made would have been motivated to make the proposed modification.*

As such to **claim 15**, for step (a) *Ericsson* see similar rejection to claim 1.

For step (b) *Ericsson* is silent or deficient to the further limitation protocol label switching (e.g., MPLS). However, *Ericsson* does disclose layer 2 tunneling to the ISP and also teaches that the IP tunnel could be ATM or FR, see e.g., page 28, lines 9-15.

*Mikkonen* teaches the further recited limitation above at e.g., figure 6.

For step (c), the proposed modification of the above-applied reference(s) necessary to arrive at the claimed subject matter would be to modify *Ericsson* by showing that MPLS can be used as an IP tag for either an IP tunnel or for ATM.

In order to establish a prima facie case of obviousness for step (d), three basic criteria must be met. The three criteria according to MPEP 706.02(j) are as follows:

*First there must be some suggestion or modification, either in the reference(s) themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.*

As such, for step (d) examiner notes that it would have been obvious to one skilled in the art prior to applicant's invention to include the further limitation protocol label switching (e.g., MPLS). In particular, the motivation for modifying the reference or to combine the reference teachings would be to reduce the need for performing time consuming routing on the basis of the address data of the network layer. In particular, *Mikkonen* cures the above-cited deficiency by providing a motivation found at e.g., column 3, line 1-20. Second, there would be a reasonable expectation of success since *Mikkonen* shows that MPLS is implemented in a wireless network and at a mobile IP router in particular. Thus the references either in singular or in combination teach the above claim limitation(s).

As to **claim 16**, see similar rejection for claim 15.

### ***Conclusion***

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11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derrick W. Ferris whose telephone number is (571) 272-3123. The examiner can normally be reached on M-F 9 A.M. - 4:30 P.M. E.S.T.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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